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				litle, Date, Perti				
	Chirgwin, John M	I., Alan E. Przy	byla, Raymon	J. MacDonald,	and William J.	Rutter. 1979. '	Isolation of	
DV	Biologically Active Ribonucleic Acid from Sources Enriched in Ribonuclease." <i>Biochemistry</i> . Vol. 18, No. 24, pp. 5294-5299.							
	Bleil, Jeffrey D. a	nd Paul M. Wa	assarman. July	1980. "Mamma	lian Sperm-Egg	Interaction: Ide	entification	
	of a Glycoprotein	in Mouse Egg	Zonae Pellucio	lae Possessing Re	eceptor Activity	for Sperm." C	<i>Sell</i> . Vol. 20,	
<del>-  </del> ,	pp. 873-882. Maggio, Edward	T 1980 Fnzy	me-Immunoass	av Boca Raton	FL: CRC Press	Inc. pp. 186-	187.	
	Dunbar, Bonnie S., Cecilia Liu, and David W. Sammons. 1981. "Identification of the Three Major Proteins of Porcine and Rabbit Zonae Pellucidae by High Resolution Two-Dimensional Gel Electrophoresis:							
	Comparison with	Serum, Follicu	ılar Fluid, and (	Ovarian Cell Prot	eins." <i>Biology</i>	of Reproduction	n. Vol. 24,	
	pp. 1111-1124. ' McIlhinney, R. A. J. and Shashikant Patel. March 1983. "Characterization of the Fibronectin Synthesized by Human Germ Cell Tumors." <i>Cancer Research</i> . Vol 43, pp. 1282-1288.							
	Florman, Harvey M. and Paul M. Wassarman. May 1985. "O-Linked Oligosaccharides of Mouse Egg ZP							
	Account for Its Sperm Receptor Activity." Cell. Vol. 41, pp. 313-324.  Fukuda, Michiko N., Anne Dell, Jane E. Oates, and Minoru Fukuda. June 1985. "Embryonal Lactosaminoglycan: The Structure of Branched Lactosaminoglycans with Novel Disialosyl (Sialyl alpha2-9 Sialyl) Terminals Isolated from PA1 Human Embryonal Carcinoma Cells." The Journal of							
	Biological Chemi	stry. Vo. 260,	No. 11, pp. 662	23-6631.	- 1 1.1.337 TV	May 10	06 "To	
	Cross, Nicholas I Simple Methods	, Patricio Mor	ales, James W. .crosome-React	Overstreet, and I red Human Spern	regerick W. H. n." Gamete Res	anson. May 19 Search. Vol. 15	ou. 1 wu , pp. 213-	
.	226.							
7	Ringuette, Mauric	ce J., Donna A.	Sobieski, Stev	en M. Chamow,	and Jurrien Dea	n. June 1986.	"Oocyte-	
_	Specific Gene Ex						Receptor of	
EXAMINER	the Mouse Zona I	/ / / / / / / / / / / / / / / / / / /		DATE CONSIDI		·J.		
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EXAMINER'S INITIALS	PATENT NO.	DATE		COUNTRY	CLASS	SUBCLASS	Yes	No		
A V	Burkman, Lani J., Charles C. Coddington, Daniel R. Franken, Thinus F. Kruger, Zev Rosenwaks, and Gary D. Hodgen. April 1988. "The Hemizona Assay (HZA): Development of a Diagnostic Test for the Binding of Human Spermatozoa to the Human Hemizona Pellucida to Predict Fertilization Potential." Fertility and Sterility. Vol. 49, No. 4, pp. 688-697.  Shabanowitz, R. B. and M. G. O'Rand. 1988. "Characterization of the Human Zona Pellucida from Fertilized and Unfertilized Eggs." J. Reprod. Fert. Vol. 82, pp. 151-161.  Timmons, T. M. and B. S. Dunbar. 1988. "Antigens of Mammalian Zona Pellucida." Perpectives in Immunoreproduction: Conception and Contraception. New York: Hemisphere Publishing Co. pp. 242-260.  Wassarman, Paul M. 1988. "Zona Pellucida Glycoproteins." Ann. Rev. Biochem. Vol. 57, pp. 415-442.  Saling, Patricia M. 1989. "Mammalian Sperm Interaction with Extracellular Matrices of the Egg." Oxf. Rev. Reprod. Biol. Vol. 11, pp. 339-388.  Sambrook, J., E.F. Fritsch, and T. Maniatis. 1989. Molecular Cloning: A Laboratory Manual. 2nd Edition. Cold Spring Harbor Laboratory Press. pp. 16.32-16.37.  Oehninger, Sergio, Anibal Acosta, and Gary D. Hodgen. January 1990. "Antagonistic and Agonistic Properties of Saccharide Moieties in the Hemizona Assay." Fertility and Sterility. Vol. 53, No. 1, pp. 143-									
	<ul> <li>Furukawa, Tatsuhiko, Masayuki Ozawa, Ruo-Pan Huang, and Takashi Muramatsu. March 1990. "A Heparin Binding Protein Whose Expression Increases During Differentiation of Embryonal Carcinoma Cells to Parietal Endoderm Cells: cDNA Cloning and Sequence Analysis." J. Biochem. Vol. 108, No. 2, pp. 297-302.</li> <li>Liang, Li-Fang, Steven M. Chamow, and Jurrien Dean. April 1990. "Oocyte-Specific Expression of Mouse Zp-2: Developmental Regulation of the Zona Pellucida Genes." Molecular and Cellular Biology. Vol. 10, No. 4, pp. 1507-1515.</li> <li>Kinloch, Ross A., Betina Ruiz-Seiler, and Paul. M. Wassarman. August 1990. "Genomic Organization and Polypeptide Primary Structure of Zona Pellucida Glycoprotein hZP3, the Hamster Sperm Receptor." Developmental Biology. Vol. 142, pp. 414-421.</li> <li>Wassarman, Paul M. 1990. "Profile of a Mammalian Sperm Receptor." Development. Vol. 108, pp. 1-17.</li> </ul>									
EXAMINER	Dele	) 		DATE CONSIDER				:		

SHEET 3 OF 5 ATTY, DOCKET NO. SERIAL NO. 113019.179US1 09/252,828 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (PTO-1449) APPLICANT Ke-Wen DONG et al. FILING DATE GROUP February 19, 1999 1641 US PATENT DOCUMENTS FILING **EXAMINER'S** CLASS SUBCLASS DATE INITIALS PATENT NO. DATE NAME EXAMINER'S COUNTRY CLASS SUBCLASS INITIALS PATENT NO. DATE No Yes OTHER ART (Including Author, Ville, Date, Pertinent Pages, Etc.) Wassarman, P. M. 1990. "Regulation of Mammalian Fertilization by Zona Pellucida Glycoproteins." J. DV Reprod. Fert., Suppl. Vol. 42, pp. 79-87. 1991. "Errata." Developmental Biology. Vol. 145, pp. 203-204. Saling, Patricia M. 1991. "How the Egg Regulates Sperm Function During Gamete Interaction: Facts and Fantasies." Biology of Reproduction. Vol. 44, pp. 246-251. Beebe, Stephen J., Lisette Leyton, Deborah Burks, Motoharu Ishikawa, Tom Fuerst, Jurrien Dean, and Patricia Saling. January 1992. "Recombinant Mouse ZP3 Inhibits Sperm Binding and Induces the Acrosome Reaction." Developmental Biology. Vol. 151, pp. 48-54. Thillai-Koothan, P., Marcel Van Diun, and R. John Aitken. May 1993. "Cloning, Sequencing and Oocyte-Specific Expression of the Marmoset Sperm Receptor Protein, ZP3." Zygote. Vol. 1, pp. 93-101. Lee, Vaughan H., Eric Schwoebel, Sarvamangala Prasad, Peter Cheung, Therese M. Timmons, Richard Cook, and Bonnie S. Dunbar. June 1993. "Identification and Structural Characterization of the 75-kDa Rabbit Zona Pellucida Protein." The Journal of Biological Chemistry. Vol. 268, No 17, pp. 12412-12417. Liang, Li-Fang and Jurrien Dean. 1993. "Conservation of Mammalian Secondary Sperm Receptor Genes Enables the Promoter of the Human Gene to Function in Mouse Oocytes." Developmental Biology. Vol. 156, pp. 399-408. Varki, Ajit. 1993. "Biological Roles of Oligosaccharides: All of the Theories Are Correct." Glycobiology. Vol. 3, No. 2, pp. 97-130. Barratt, C.L.R., A. Whitmarsh, D.P. Hornby, S. Clements, I.D. Cooke, and H.D.M. Moore. 1994. "Glycosylation of Human Recombinant ZP3 Is Necessary to Induce the Human Acrosome Reaction" (Abstract No. 33). Hum. Reprod. Vol. 9 (Suppl.). Dunbar, B. S., S. Avery, V. Lee, S. Prasad, D. Schwahn, E. Schwoebel, S. Skinner, and B. Wilkins. 1994. "The Mammalian Zona Pellucida: Its Biochemistry, Immunochemistry, Molecular Biology, and Development Expression." Reprod. Fertil. Dev. Vol. 6, pp. 331-347. **EXAMINER** DATE CONSIDERED 64

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	Hinsch, Klaus-Die	ter, Elvira Hin	isch, Burkhard	M	einecke, Edda Töpfe	r-Petersei	n, Susanne Phst	erer, and	
<b>W</b>	Wolf-Bernhard Sc	hill. 1994. "I	dentification o	f M	Iouse ZP3 Protein in	Mammal	ian Oocytes wit	h Antisera	
1	Against Synthetic	ZP3 Peptides.	" Biology of R	ep.	roduction. Vol. 51,	pp. 193-20	04.		
	Van Duin, Marcel	, Jan E.M. Pol	man, Ingeborg	Τ.	M. de Breet, Karin V	/an Ginne	ken, Hans Buns	choten,	
	Arijan Grootenhui	s, James Brind	lle, and R. Joh	n A	Litken. 1994. "Reco	mbinant I	Human Zona Pe	llucida	
1.	Protein ZP3 Produ	ced by Chines	e Hamster Ova	агу	Cells Induces the H	uman Spe	rm Acrosome F	Reaction and	
1	Promotes Sperm-H	Egg Fusion." I	Biology of Rep	roa	luction. Vol. 51, pp.	607-617.			
	Varki, Aiit, 1994.	"[2] Metabol	ic Radiolabelii	ng	of Glycoconjugates.	" Method	s in Enzymolog	y. Vol. 230,	
1	pp. 16-32.			_	•				
1		, Charles C. C	oddington, Gar	гу ]	D. Hodgen, and Mar	kku Seppa	ala. February 1	995.	
H [	"Factors Affecting	Fertilization:	Endometrial P	lac	cental Protein 14 Rec	luces the (	Capacity of Hur	nan	
	Spermatozoa to B	ind to the Hum	an Zona Pellu	cid	a." Fertility and Ste	rility. Vo	l. 63, No. 2, pp	377-383.	
	Burks, D. J. R. C.	rballada H D	M. Moore. at	nd	P. M. Saling. July 1	995. "Int	eraction of a Ty	rosine	
1 1	Kinase from Hum	an Sperm with	the Zona Pelli	uci	da at Fertilization."	Science.	Vol. 269. pp. 83	3-86.	
<del> </del>	Rarratt Christoph	er I. R. and Da	vid P Hornby		Induction of the Hu	man Acros	some Reaction	oy rhuZP3."	
k I	Barratt, Christopher L.R. and David P. Hornby. "Induction of the Human Acrosome Reaction by rhuZP3." 1995. Human Sperm Acrosome Reaction. Colloque INSERM/John Libbey Eurotext Ltd. Vol. 236, pp.								
1	1995. Human Sperm Acrosome Reaction. Colloque INSERMIJOHN Libbery Eurotext Ltc. Vol. 230, pp. 105-122.								
<del>                                     </del>	I not I A DE In	lingk K A Da	noven I A E	ro.d	larick R.K. Uuntlass	IK Bras	ten and NI M	aible 1995	
	Lust, J.A., D.F. Jelinek, K.A. Donovan, L.A. Frederick, B.K. Huntley, J.K. Braaten, and N.J. Maihle. 1995.								
	"Sequence, Expression and Function of an mRNA Encoding a Soluble Form of the Human Interleukin-6								
	Receptor (sIL-6R)." Curr. Top. Microbiol. Immunol. Vol. 194, pp. 199-206.								
	Whitmarsh, A.J., M.J. Woolnough, H.D.M. Moore, D.P. Hornby, and C.L.R. Barratt. 1996. "Biological								
	Activity of Recombinant Human ZP3 Produced in vitro: Potential for a Sperm Function Test." Molecular								
	Human Reproduction. Vol. 2, No. 12, pp. 911-919.								
	Franken, Daniel R., Patricio J. Morales, and Ursula F. Habenicht. December 1996. "Inhibition of G Protein								
1	in Human Sperm and Its Influence on Acrosome Reaction and Zona Pellucida Binding." Fertility and								
	Sterility. Vol. 66, No. 6, pp. 1009-1011.								
EXAMINER	ER DATE CONSIDERED						•		
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SHEET 5 OF 5 SERIAL NO. ATTY. DOCKET NO. 113019.179US1 09/252,828 INFORMATION DISCLOSURE CITATION IN AN **APPLICATION** (PTO-1449) APPLICANT Ke-Wen DONG et al. FILING DATE GROUP February 19, 1999 1641 S\*PATENT DOCUMENTS **EXAMINER'S** FII ING PATENT NO. CLASS SUBCLASS INITIALS DATE NAME DATE \* FOREIGN PATENT DOCUMENTS **EXAMINER'S** SUBCLASS PATENT NO. DATE COUNTRY CLASS INITIALS Yes OTHER ART (Including Author Tide Date Pertinent Pages, Etc.) Brewis, I.A., R. Clayton, C.L.R. Barratt, D.P.J. Hornby, and H.D.M. Moore. 1996. "Recombinant Human Zona Pellucida Glycoprotein 3 Induces Calcium Influx and Acrosome Reaction in Human Spermatozoa."  $\mathbb{P}^{\sqrt{}}$ Molecular Human Reproduction. Vol. 2, No. 8, pp. 583-589. Chapman, Neil R. and Christopher L.R. Barratt. 1996. "The Role of Carbohydrate in Sperm-ZP3 Adhesion." Molecular Human Reproduction. Vol. 2, No. 10, pp. 767-774. Prasad, Sarvamangala V., Brendan Wilkins, Sheri M. Skinner, and Bonnie S. Dunbar. 1996. "Evaluating Zona Pellucida Structure and Function Using Antibodies to Rabbit 55 kDa ZP Protein Expressed in Baculovirus Expression System." Molecular Reproduction and Development. Vol. 43, pp. 519-529. Dong, Ke Wen, Ting Fung Chi, Yu Wen Juan, Chih Wei Chen, Zhiyong Lin, Xiao-Qin Xiang, Mary Mahony, William E. Gibbons, and Sergio Oehninger. April 2001. "Characterization of the Biologic Activities of a Recombinant Human Zona Pellucida Protein 3 Expressed in Human Ovarian Teratocarcinoma (PA-1) Cells." Am. J. Obstet. Gynecol. pp. 835-844. DATE CONSIDERED **EXAMINER**